## BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

INFORMATIONAL PROCEEDING ON METHODS FOR SATISFACTION OF CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS RELATING TO GREENHOUSE GAS EMISSION IMPACTS OF POWER PLANTS

DOCKET NO. 08-GHG OII-1

Order No. 08-1008-11

### COMMENTS ON INITIAL QUESTIONS TO BE ADDRESSED

**DOCKET** 

08-GHGOII-1

**DATE** NOV 11 2008

**RECD.** NOV 07 2008

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Dated:

November 11, 2008

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#### COMMENTS ON INITIAL QUESTIONS TO BE ADDRESSED

Unlike most other types of environmental impacts that have a local focus, greenhouse gas (GhG) emissions and impacts are global. Therefore, no individual action will create or solve the problem. But, many coordinated individual actions will be required to reduce worldwide emissions and their harmful impacts. Unlike criteria pollutants where a power plant facility could be moved to a location with better air quality to reduce impacts such as building a coal fired power plant outside of California, no other location would reduce the power plant's contribution to global warming. Therefore, relocating the power plant or simply forcing the power plant to be built outside of California is not a solution.

In addition, the California Energy Commission ("Commission") has recognized power plants do not create demand or induce growth. Instead power plants respond to increases in demand and are built to serve load.. Furthermore, investor owned utilities (IOUs) have an obligation to serve. If customers use electricity IOUs must provide electricity to meet their customers' demand. They cannot simply shut the power plant off when a certain emissions limit is reached instead the IOU must provide electricity from somewhere. As we all experienced during the energy crises, shutting power off is not an acceptable solution.

Power plants also operate as part of an interconnected system. Due to the requirement that produced electricity match demand at all times, the output of each facility must be carefully scheduled such that its power can be accepted and likewise, if the facility must shut down, another power plant must start to replace the missing electricity. The number of power plants running and their levels of output are dictated by the applicable control area and match the level

of demand. Therefore, simply shutting off a power plant to avoid greenhouse gas emissions only means another power plant in another location must run in its place.

In October the California Air Resources Board (ARB) issued the *Proposed Scoping Plan*, a framework for change ("Proposed Scoping Plan"). In addition, the Commission and the California Public Utilities Commission (CPUC) approved the Final Opinion and Recommendations on Greenhouse Gas Regulatory Strategies D.08-10-037 (October 2008) ("Final Opinion"). Both the Proposed Scoping Plan and the Final Opinion take a comprehensive, programmatic and system wide approach to reducing GhG emissions for the electric industry. This same approach should be used to evaluate and mitigate GhG emissions from individual power plants. Specifically, the Proposed Scoping Plan states, "The comprehensive approach in the plan reflects a balance among these and other important factors" including cost-effectiveness, minimization of leakage, and impacts on specific sectors like small business and disproportionately impacted communities. (Proposed Scoping Plan at ES-7.) The Proposed Scoping Plan includes both command and control and market based mechanisms to achieve GhG reductions in the electric industry. These strategies include expanding the renewable portfolio standard (RPS) to 33 percent, maximizing current energy efficiency and participating in the Western Climate Initiative regional cap-and-trade program. (Proposed Scoping Plan at 30-38& 41-46.) This same mix of measures is included in the Final Opinion. (Final Opinion at 6-10.) The focus of both the Proposed Scoping Plan and the Final Decision on measures that apply to load serving entities such as RPS and requirements for individual emitters such as participation in a regional cap-and-trade program shown the range and depth of the efforts by these agencies to meet the requirements of AB 32.

Under the Proposed Scoping Plan the electric industry will be asked to contribute 40 percent of the GhG reductions needed to meet AB 32's goals while the industry as a whole contributes between 23 and 25 percent of the annual GhG emissions. (Final Opinion at 2; Proposed Scoping Plan at 11 & 17.) This vast difference between the contribution of this sector to GhG emissions in California and the contribution required by the electric industry for reductions demonstrates how the Proposed Scoping Plan has fulfilled the requirements for the electric industry.

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For these reasons the analysis of greenhouse gas emissions from power plants must be addressed in a comprehensive and programmatic way that addresses the entire system. An individual isolated analysis would not provide the desired reductions or the comprehensive results needed to address this global issue. Furthermore and as recognized by this Commission, such an individual analysis could end up as merely speculation. The Commission found in the Final Commission Decision on the Humbolt Bay Repowering Project (06-AFC-7) (September 2008) ("Humbolt Decision"),

[E]ven if it were not replacing this existing facility, it would be speculative to conclude that the project would result in a cumulatively significant GHG impact. AB 32 emphasizes that GHG emissions reductions must be 'big picture' reductions that do not lead to 'leakage' of such reductions to other states or countries. If a gas-fired power plant is not built in California, electricity to serve the load will come from another generating source. That could be renewable generation like wind or solar, but it could also be from higher carbon emitting sources such as out-of-state coal imports that are still a significant part of the energy that serves California<sup>1</sup>.

Pursuant to the Order Instituting Informational Proceeding the following provides responses to the *Initial Questions to Be Addressed*. Each question is provided in bold with the response to follow for ease of review. In summary, the program developed by ARB in the Proposed Scoping Plan including the reporting regulations provides the needed comprehensive and aggressive GhG reductions needed from the electric industry.

#### **CEC Greenhouse Emissions considerations for CEQA**

1. GHGs emissions have a cumulative impact on climate change that is global by nature. Are such global impacts appropriate subject to CEQA?

In order to continue the tradition of defensible Commission decisions, they need to include a section on greenhouse gas impacts. The Commission Staff has added greenhouse gas sections to recent staff assessments including the Final Staff Assessment for the Chula Vista Energy Upgrade Project and the Staff Assessment for the Orange Grove Energy Project. These analyses provide a solid basis for findings in a power plant proceeding. Simply ignoring the issue could subject Commission decisions on power

<sup>&</sup>lt;sup>1</sup> Final Commission Decision Humbolt Bay Repowering Project (06-AFC-7) at 120 (September 2008).

plants to potential review and reversal from the Supreme Court. Therefore, the Commission Staff should continue to analyze and the Commission should continue to add greenhouse gas sections to its final decisions.

## 2. Assuming CEQA does apply, what should be the CEQA "threshold of significance" for GHG emissions from a given project?

Power plants should be considered as part of a system not as an individual source. Therefore, setting a standard of significance for individual power plant emissions fails to recognize the comprehensive approach to the electric industry provided by the Proposed Scoping Plan and the Final Opinion.

A. CEQA requires that a cumulative impact be "cumulatively considerable" for it to be significant, and air districts typically set quantitative thresholds for criteria pollutants based on the concept. What GHG emission levels are less than "cumulatively considerable?"

#### i. Power plant construction emissions?

Like all construction projects construction of a power plant will result in short-term unavoidable vehicle and equipment GhG emissions. Furthermore, requirements to reduce the impacts from criteria pollutants also reduce GhG emission such as decreased idling times and the use of newer more efficient equipment where appropriate. Even ARB who is also conducting a proceeding to set significance levels for other industries has not presented a zero emission increase as the significance threshold noting that some level of emission in the near term and at mid-century is still consistent with climate stabilization. (Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance thresholds for Greenhouse Gases under the California Environmental Quality Act at 4 [Oct. 24, 2008.].) Therefore, given the short-term nature of GhG emissions from construction and the benefits obtained by mitigation used to reduce criteria pollutant emissions from construction included in all conditions of certification for siting cases, the GhG emissions from construction of power plants should not be considered significant. The conditions of certification used to decrease criteria pollutant emissions should be included as mitigation measures for GhG emissions during construction.

#### ii. "Peaking" gas-fired power plants (however defined)?

As stated above power plants work as part of a system. As noted in the 2007 Integrated Energy Policy Report (IEPR) gas fired peaking facilities are needed to support the addition of intermittent renewable generation such as wind and solar. (2007 IEPR at 186.) Furthermore, peaking power plants operate between 5 and 10 percent of the time in response to system needs to support local or regional demand until more efficient facilities can come ramp up and meet the demand. Peaking facilities are widely recognized as needed to support wind and solar resources to balance the system and provide additional generation if the weather forecast is incorrect and either the expected wind does not arrive or a storm system or cloud cover reduces the output of a solar field.

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Peaking resources could easily be considered to be a requirement for enabling the addition of renewable resources to the system. Therefore, their impacts could easily be considered to support the overall reduction in GhG emissions from the electric system.

## iii. Emissions from power plants that do not exceed limits set by SB (1368 regulations?

As stated above, the GhG emissions from power plants should not be evaluated individually but instead should be evaluated in a programmatic system wide approach. If the Commission feels the need to create a quantitative threshold for baseload power plants, the emission performance standards set by both the Commission and the CPUC would be a workable limit.

- 3. What is the proper CEQA "baseline" for determining the significance of GHG emissions?
  - A. Are all new power plant projects with emissions that exceed some threshold level "cumulatively considerable" (so called "zero baseline")?

As stated above, even ARB staff has indicated a zero baseline is not justified. This is especially true when looking at power plants and the fact that power plants work as a part of a system and not individually.

B. Alternatively, should the baseline be the current GHG emissions of the entire electric generation "system" comprised of all in-state generation and all out-of-state- imparts? In other words, if the new power plant reduces the State's overall GHG emissions, would this make the impact less than significant? If this "system" perspective has merit, what analysis might be required to demonstrate, to the degree appropriate, that there is no significant "system" impact from a facility?

If this Commission is going to set any kind of a baseline for evaluating power plants, it must be at a system level and such an analysis must recognize growth. Nonetheless, this level of analysis is incredibly difficult and requires significant use of assumptions regarding the carbon content of imported electricity. As recognized in the proceedings conducted by this Commission and the CPUC, determining the exact carbon content of imported electricity is not simple, and there is no generally supported method of accurately providing those numbers. Nonetheless, ARB has used just these types of estimates to determine the carbon content of imported electricity in 1990 and is using those same estimates now for calculating the emissions associated with current imports of electricity. But, these system averages are not accepted by surrounding states and are subject to manipulation.

# C. Should certain generation technologies be considered categorically less than significant?

Again, the analysis of power plant emissions should be a system wide and comprehensive approach where this type of analysis is unnecessary.

4. If an individual power plant is found to have a significant cumulative impact due to GHG emissions, is it feasible to mitigate this cumulative impact?

There should be mitigation options in all instances, and this is no exception. Nonetheless, we believe it is premature to be addressing mitigation. Addressing GhG emissions from power plants should be based upon a programmatic and system wide approach not by individual power plant.

5. CEQA provides for the use of programmatic approaches for addressing cumulative impacts, such as for air quality criteria pollutant reduction plans, or water quality emission plans. Is it more appropriate to mitigate power plant GHG emissions case-by-case or with a more encompassing program?

As stated above, ARB is developing a comprehensive and focused plan to reduce GhG emissions for California. It is this very program that will provide all of the reductions from the electric power industry. This industry is already being asked to provide 40 percent of the reductions when the industry only contributes between 23 and 25 percent of the emissions. This comprehensive approach includes both requirements on load serving entities such as the renewable portfolio standard as well as a regional cap and trade program. This comprehensive and aggressive program should be recognized as the place where GhG emissions from power plants will be addressed and mitigated. Creating a second system to address GhG emissions is only adding excessive burden to an industry already being asked to provide almost double the emissions reductions based upon its contribution to California's GhG emissions.

In response to the question about override, the Commission should always provide an opportunity for an override. We can never predict when such a situation would occur when an override would be needed.

Respectfully,

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